# OAK HILL YOUTH CENTER



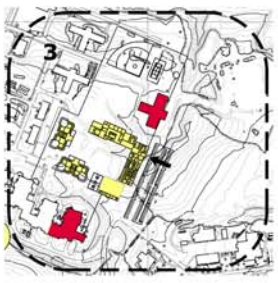

**VICINITY MAP**

**SITE PLAN KEY:**
1. ACADEMIC EDUCATION
2. VOCATIONAL EDUCATION (DIRTY)
3. THEATRE
4. COMMONS
5. DINING
6. FOOD SERVICE
7. SECURE SERVICE COURT
8. SUPERINTENDENT
9. MEDICAL
10. VISITING
11. ADMISSIONS & CONTROL
12. PUBLIC LOBBY
13. ADMINISTRATION
14. GYMNASIUM
15. TRANSPORTATION
16. WAREHOUSE
17. MAINTENANCE SHOPS
18. HORTICULTURE VOCATION
19. OUTDOOR VISITING
20. OUTDOOR ACTIVITIES
21. OUTDOOR EDUCATION
22. HOUSING UNIT A
23. HOUSING UNIT B
24. HOUSING UNIT C
25. OUTDOOR RECREATION & ACTIVITIES
26. LOADING/UNLOADING YARD
27. MAIN UTILITY COURT
28. STAFF/ADMIN. PARKING
29. BIORETENTION
30. STAFF/ADMIN. PARKING
31. BIORETENTION
32. SALLY PORT
33. OUTDOOR RECREATION
34. PUMP STATION
35. BIORETENTION
36. FLOODPLAIN


**SITE PLAN**

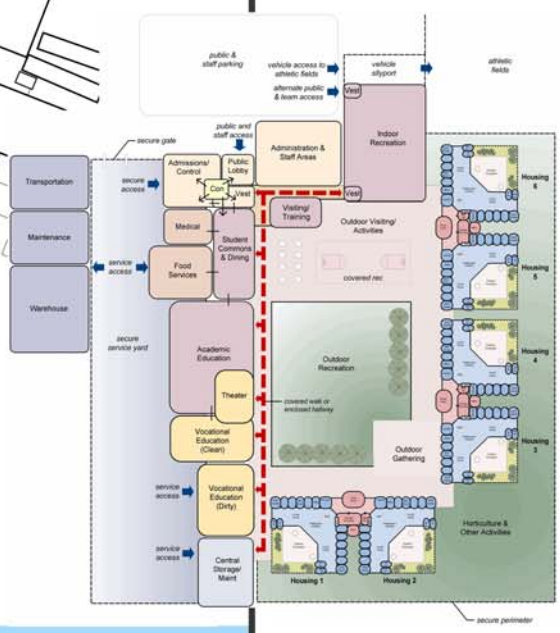
**MAIN BUILDING SECTIONAL ELEVATION LOOKING WEST**







**SITE ANALYSIS DIAGRAMS**




**OVERALL PROGRAM DIAGRAM**

*"Not only are we building a new facility, but we plan on operating these facilities in a radically new fashion. The facility that replaces Oak Hill will avoid some of the harsher aspects of large prison-like facilities like Oak Hill and will allow for the kind of individualized programming that is the key to success."*

-Vincent Schiraldi, DYRS director

Project Info:
Oak Hill Youth Center

Nature of Firms Responsibility:
Programming, Project Management, Design Architect, 30% Bridging documents- A/E services included, Archaeology, EISF, LEED Consulting, MEP & Structural Engineering, Civil Engineering, Food Service Consulting, Landscape Architecture, Building Commissioning

Project Owner:
DC Government

Prospective User:
DC Department of Youth Rehabilitation Services (DYRS)

Completion Date:
Spring 2008 anticipated

The existing Oak Hill facility was built in the 1970s, located on 888 acres of land in Anne Arundel County. It had a population of as many as 240 detained and committed male juveniles, between the ages of 12 and 20, housed together. The existing campus is configured like an adult correctional facility with a double razor-wire perimeter fence and free standing one-story buildings, spread out over a large area. The housing units have secure cells on double-loaded corridors, which are difficult to control and discourage interaction and positive reinforcement.

Replacement of this facility has been a significant remedy of a consent degree, set down in the 1980s. The proposed new state-of-the-art 60-bed facility will replace the existing one and follow a new model for juvenile justice reform, patterned after smaller facilities used in Missouri. The key aspect of this model is to create a smaller 'home-like' setting and encourage positive behavior through peer pressure and more staff-to-student interaction. The DC of Office of Property Management and the Department Youth Rehabilitation Services hired BELL Architects with Michael McMillen to guide the evolution of this new facility through the programming, planning and design process.

**Programming**

The programming study included investigating successful models in other parts of the country and analyzing possible sites within the 888 acres. The concept design process considered four potential locations for a new facility including the possible adaptive reuse of two existing buildings as a 24-bed facility. It was determined given the many cost, infrastructure and operational constraints and desires of stakeholders that a single, sixty-bed facility should be built rather than a separate 36 bed new facility with the a separate, but adjacent 24-bed facility located in an existing, converted building.

Of these locations, one site (number two) was selected as the better of the possible options to consider, given access, infrastructure, grading and other attributes. This location has existing utilities, requires minimal grading, avoids significant demolition of existing buildings and provides easy access along existing roadways. It also allows for significant separation from the NSA property north of the Little Patuxent River and allows for a reasonable amount of future development south of that River.

The project design is based on the DYRS belief that effective operations pertaining to youthful offenders in secure institutional settings demands a residential environment that encourages positive resident participation through normative physical arrangements while limiting opportunities for damaging, counterproductive behavior. The DC government established that the facility would meet a LEED silver rating for leadership in environmental and energy design, as part of the goals for the project. This would establish the quality of the indoor environment and the energy efficiency of its operation.

**Design Approach**

The facility occupies a site of 15 acres and proposes five new one-story buildings with a total of 84,000 gross square feet of floor area. The site includes 150 parking spaces, a vehicle service court and an interior pedestrian landscaped courtyard with basketball courts. The recreation yards include a baseball diamond, football field, and running track. The main building contains the admissions, medical, superintendent's offices, food service, dining, theater, student commons, academic education and vocational training departments. It also has administrative offices for the entire Department of Youth Rehabilitation Services. A separate, free standing gymnasium with a warehouse and vehicle maintenance facility is included in the design. Three, 20-bed housing units are also freestanding, grouped around a common area that includes sitting areas and an outdoor basketball court.

Each of the three housing units is a low-scale single-story structure consisting of two 10-bed sub-units with shared support and utility spaces. These units are clustered for quick internal connections by staff but are separate from each other to provide for groupings of distinct classifications if necessary. Each 10-bed sub-unit has individual bedrooms and bathrooms surrounding a day-lit living room that opens onto an outdoor courtyard, thus creating an additional 'backyard' outdoor space. In response to requirements in the consent decree, each resident can use the bathroom at night through a technologically advanced door control monitoring system, without the intervention of staff. The housing is a residential scale with the potential for wood-framed or light-gage construction.

The organization of the main building was conceived as the mind, body and soul of the facility. The educational area forms the mind; theatre and commons area- the soul; and food service and medical areas form the body. The commons area reaches out like the prow of a ship, inviting kids to gather, learn, play and participate in activities with a strong visual connection to the outside. The educational area is oriented by turning on an east-west axis, so that its library opens toward the south-east, allowing circulation to flow freely and give a warm, sunlit space for reading, without overheating. Windows introduce north light and provide views for classrooms and art room and a south facing clerestory provides diffuse light and ventilation in the library and circulation spine at the multipurpose space.

The L-shaped main building and gymnasium serve as a perimeter enclosure and along with the three housing units are grouped to create an interior courtyard. This helps in minimizing the views of the security fencing.

**LEED Elements**

This facility is designed to meet a Silver rating by the U.S. Green Building Council. As part of the LEED Silver rating, energy and environmentally responsive techniques were employed. Goals were focused to reduce indoor pollution, energy consumption, excess heat build-up and improve the quality of the interior environment.

Daylight and views are critical components of sustainable design and have been used to make interior spaces more humane. Operable windows and skylights provide natural ventilation, optimized natural light and views. Natural light filters in through solar-tracking skylights, through light-diffusing and clear glass at clerestory windows and exterior windows and curtainwalls.

Occupants will have increased comfort through zoned HVAC, integrated daylighting and occupancy sensor controls. The indoor air quality is improved by monitoring during construction, low-VOC materials such as prefinished walls and sealed and polished concrete floors. Low-albedo rooftops, concrete paving and shade trees help reduce the heat island effect. Efficient water usage and control of runoff are addressed with rain water collection and storage for irrigation, rain garden and bio-retention stormwater management. Energy and resource efficiency is further promoted through recycling concrete from existing abandoned buildings for site work, full building commissioning, high efficiency lighting and HVAC systems and solar water heating.

The bridging documents were established with 'Add Alternates' to give the design-build contractor some flexibility to achieve LEED Silver rating and meet the budget constraints. For example, provisions for a future 16,000 sq. ft. of photovoltaic panels mounted on the roof of the gymnasium, warehouse and administration buildings would allow for on-site electricity production, tied to the electrical grid.

**BELL**Architects

detail *by design*

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